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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte SCOTT D. SMYERS and HAROLD AARON LUDTKE

Appeal 2009-002158
Application 09/608,617
Technology Center 2100

Decided: December 23, 2009

Before JOHN A. JEFFERY, STEPHEN C. SIU, and DEBRA K.
STEPHENS, *Administrative Patent Judges*.

STEPHENS, *Administrative Patent Judge*.

DECISION ON APPEAL

Appellants appeal under 35 U.S.C. § 134(a) (2002) from a final rejection of claims 1-15, 19-35, and 44-54. We have jurisdiction under 35 U.S.C. § 6(b) (2008). Appellants waived their original request for an oral hearing.

We AFFIRM.

Introduction

According to Appellants, the invention is a system and method for a media storage device that records a meta-data header with packets received by the media storage device (Abst.).

STATEMENT OF THE CASE

Exemplary Claims

Claims 1, 8, and 19 are exemplary claims and are reproduced below:

1. A method of writing data to a media storage device comprising:
 - a. receiving a received packet of data to be written to the media storage device, the received packet of data including a packet header;
 - b. adding a meta data header to the received packet of data at the media storage device thereby forming an extended packet of data including both the packet header and the meta data header; and
 - c. storing the extended packet of data onto a media within the media storage device.

8. A method of reading data from a media storage device which has previously been stored with header data generated by the media storage device comprising:
 - a. locating a first header data, including a cycle mark value having a pattern;

- b. reading a previously stored packet of data following the first header data from a media within the media storage device, the previously stored packet of data including a packet header;
- c. stripping the first header data from the previously stored packet of data at the media storage device thereby forming a retrieved packet of data; and
- d. transmitting the retrieved packet of data to another device.

19. A computer readable medium comprising a meta data header added to received packets by a media storage device as the packets are recorded on storage media within the media storage device, each of the received packets including an existing header to which the meta data header is added such that the received packets include both an existing header and a meta data header, the meta data header comprising:

- a. a cycle mark value including a pattern used to locate cycle boundaries within the received packets; and
- b. a cycle count value specifying a cycle number of a cycle in which the received packets are received.

Prior Art

Webb

6,675,177 B1

Jan. 6, 2004

Rejections

Claims 19-23 and 53 stand rejected under 35 U.S.C. § 101 as being directed to non-statutory subject matter.

Claims 1-15, 19-35, and 44-54 stand rejected under 35 U.S.C. § 102(e) as being anticipated by Webb.

GROUPING OF CLAIMS

(1) Appellants argue claims 19-23 and 53 as a group based on arguments set forth for claim 19 (App. Br. 8-9). We therefore treat claims 20-23 and 53 as standing or falling with representative claim 19.

(2) Appellants argue claims 1-7, 19-35, and 44-54 as a group based on arguments set forth for claim 1 (App. Br. 10-18). We therefore treat claims 2-7, 19-35, and 44-54 as standing or falling with representative claim 1.

(3) Appellants argue claims 8-15 as a group based on arguments set forth for claim 8 (App. Br. 12-13). We therefore treat claims 9-15 as standing or falling with representative claim 8.

We accept Appellants' grouping of the claims. *See* 37 C.F.R. § 41.37(c)(1)(vii) ("Notwithstanding any other provision of this paragraph, the failure of appellant to separately argue claims which appellant has grouped together shall constitute a waiver of any argument that the Board must consider the patentability of any grouped claim separately.").

ISSUE 1

35 U.S.C. § 101: claims 19-23 and 53

Appellants argue claim 19 recites a computer readable medium which is a storage medium wherein a meta data header containing cycle count and cycle mark value is added to received packets by a media storage device (App. Br. 9). Appellants contend such a computer readable medium within a media storage device "produces a useful, concrete and tangible result by enabling real-time playback of time-sensitive data stored on the computer readable medium through use of timing information stored in the meta data

header with the isochronous data packets on the computer readable media” (*id.*). Therefore, Appellants argue, the invention as recited is allowable statutory subject matter.

The Examiner concludes the claimed invention does not involve transformation of an article or physical object to a different state or thing (Ans. 4). Instead, the Examiner concludes, the invention as recited “merely recites a meta data header” (*id.*). Moreover, the Examiner concludes, a useful, concrete, and tangible result is not recited – only a mere medium claim (*id.*).

Issue 1: Have Appellants shown the Examiner erred in concluding claims 19 and 53 recite non-statutory subject matter?

FINDINGS OF FACT (FF)

We find the facts as follows:

Appellants’ Invention

(1) “The media storage device 40 of the present invention is preferably a hard disk drive [T]he media storage device 40 could also include both fixed and removable media using any one or more of magnetic, optical or magneto-optical storage technology or any other available mass storage technology.” (Spec. 13, ll. 17-20).

(2) The computer readable medium claimed in Claim 19 is a media storage device upon which data has been stored. (App. Br. 9).

(3) Meta-data headers stored within the stream of data are used to locate specific locations within the stream of data during retrieving operations. (Spec. 13, l. 27 – 14, l. 8.)

(4) Appellants' invention allows writing and reading of time sensitive data from a media storage device to regain synchrony after an error or lapse in synchrony. (Spec. 1, l. 9-11.)

(5) The meta-data headers include the cycle_mark field and the cycle_count field. The meta-data headers are stored with packets of data received by a media storage device. Through use of the meta-data headers, the media storage device locates appropriate boundaries and locations within the recorded stream of data during a playback operation to appropriately playback the recorded stream of data and recover from any error conditions that might occur. (Spec. 22, ll. 19-24).

PRINCIPLES OF LAW

Claim Construction

"The Patent and Trademark Office (PTO) must consider all claim limitations when determining patentability of an invention over the prior art." *In re Lowry*, 32 F.3d 1579, 1582 (Fed. Cir. 1994) (citing *In re Gulack*, 703 F.2d 1381, 1385 (Fed. Cir. 1983)). "Claims must be read in view of the specification, of which they are a part." *Markman v. Westview Instruments, Inc.*, 52 F.3d 967, 979 (Fed. Cir. 1995) (en banc) (citing *Autogiro Co. of Am. v. United States*, 384 F.2d 391, 397 (Fed. Cir. 1967)).

35 U.S.C. § 101

In *Lowry*, the court concluded that a memory containing attribute data objects (ADOs) was not printed matter as it included both information used by application programs and information regarding the ADO physical interrelationships within a memory to provide increased computing efficiency. *Lowry*, 32 F.2d at 1583. The court further concluded that since

“Lowry’s claims dictate how application programs manage information . . . Lowry’s claims define functional characteristics of the memory.” *Id.* In addition, the court determined that Lowry’s invention was “more than mere abstraction[,]” but rather provided specific electrical or magnetic elements in a memory. *Id.* at 1583-84. As a result, the court concluded Lowry’s data structures provided improved computer operation, a feature that distinguished it from printed matter. *Id.* at 1584.

“[A] machine is a concrete thing, consisting of parts, or of certain devices and combination of devices.” *In re Ferguson*, 558 F.3d 1359, 1364 (Fed. Cir. 2009) (citations and internal quotation marks omitted).

ANALYSIS

The invention as recited in claim 19 is a computer readable medium including data of a particular structure. Appellants have defined a computer readable medium as a media storage device (FF 2) which is in turn described in Appellants’ Specification as a hardware device (FF 1). Thus, we find the computer readable medium recited in claim 19 is a hardware memory.

Appellants (App. Br. 8-9 and Reply Br. 3-4) and the Examiner (Ans. 7) would have us determine patentability based on whether the invention produces a “useful, concrete, and tangible result,” a test the court in *In re Bilski*, 545 F. 3d 943 (Fed Cir. 2008) held to be inadequate to determine whether a claim is patent-eligible under § 101. *Id.* at 959-60. Therefore, we will not use that test, but instead proceed with our analysis in light of current tests.

To begin, under §101, four categories of subject matter are eligible for patent protection: (1) processes; (2) machines; (3) manufactures; and (4)

compositions of matter. 35 U.S.C. § 101. Claim 19 recites hardware memory with specific electrical or magnetic elements – a meta data header with cycle mark values and cycle count value and packets of data. (*See also* commensurate language in claim 53).

Appellants have also described improved computer operation, (FF 4 and FF 5) as did Lowry’s invention. (*See Lowry*, 32 F.2d at 1584). Specifically, Appellants’ invention enables real-time playback of time-sensitive data stored on a memory by using timing information stored in a meta data header along with data packets recorded in the memory (FF 4 and FF 5). Accordingly, we find the recited “computer readable memory” is not merely printed matter, but instead a tangible and concrete thing, consisting of parts, and thus, is a machine.

However, the determination that the claim recites a machine does not end our patentability analysis. (*See Ferguson*, 558 F.3d at 1363). We look next to determine if the invention as recited falls within the judicially-created exception of “laws of nature, natural phenomena, and abstract ideas.” *Diamond v. Diehr*, 450 U.S. 175, 185 (1981).

The computer readable medium comprises a meta data header that includes information which may be used by applications and information regarding the physical interrelationships between cycles within a received packet. (*See* Claim 19 and commensurate language in Claim 53). Similar to the court’s reasoning in *Lowry*, we find Appellant’s invention as recited in claims 19 and 53 does not merely claim the information content of a memory. (*See Lowry*, 32 F.2d at 1583). Instead, we find the claims require “specific electronic structural elements which impart a physical organization on the information stored in memory.” (*See id.*). Moreover, unlike the

recited invention in *Ex parte Gutta*, No. 2008-4366, 2009 WL 2563524, at *9-*12 (BPAI 2009) (per curiam) (expanded panel) (precedential), *available at* <http://www.uspto.gov/ip/boards/bpai/decisions/prec/fd084366.pdf>, the invention as recited in claims 19 and 53 does not recite a mathematical algorithm nor does it encompass “substantially all practical applications of the mathematical algorithm (e.g., computer applications) in substantially all fields of use.” *Id.* at *12. Accordingly, we find the invention as recited in claims 19 and 53 does not recite a law of nature, natural phenomena, or abstract idea that would otherwise exclude the claimed invention from patentability under § 101.

Therefore, after considering the totality of the record before us, we conclude independent claims 19 and 53 recite statutory subject matter.

ISSUE 2

35 U.S.C. § 102(e): claims 1-7, 19-35, and 44-54

Appellants argue their invention is not anticipated by Webb because Webb does not teach adding a meta data header to a received packet of data at a media storage device (App. Br. 10-18, §§ 1, 2a. and 2c.-k.). According to Appellants, Webb discloses the meta file and the data file are stored separately at the server (App. Br. 10, § 1). Further, Appellants contend Webb discloses the file stream flows from the computer system to the backup system and contains meta data at the boundaries of each file (*id.*).

In response, the Examiner maintains that Webb discloses “[a] computer system sends the file(s) to a backup server in a file stream [col. 3, lines 9-12].” (Ans. 8). Thus, the Examiner finds “[h]aving unique identifiers for every file within the file stream, the files may be transmitted

in any order to the backup server [col. [3], lines 12-15].” (*Id.*). The Examiner then finds that since the backup server is equivalent to the claimed media storage device, “Webb teaches a received packet of data comprising a file and a header in a media storage device” (*id.*). The Examiner further finds that Webb discloses “adding a metadata header to the received packet of data by merging files modified since the last full backup with the presently residing files at the backup server including a new meta file [fig. 3, *merge* and col. 3, lines 58-65]” (*id.*). Hence, the Examiner finds Webb discloses “adding a meta data header to the received packet of data including a packet header at the media storage device” and “writing meta data to the new cache file.” (*Id.*).

Issue 2: Have Appellants met the burden of showing the Examiner erred in finding Webb discloses (1) adding a meta data header to the received packet of data at the media storage device and (2) storing the extended packet of data onto a media within the media storage device?

FINDINGS OF FACT (FF)

We further find as follows:

Webb Reference

(6) Webb describes “an improved backup system minimizing resource utilization within the computer system, and maximizing recovery potential in the event of information losses.” (col. 1, ll. 13-15).

(7) Webb defines:

(A) A meta file as “a file that contains a meta header and a meta entry for each file or directory that exists on a client's computer system at this backup time”;

(B) File stream as “a file or group of files that contains a series of file stream entries and ends in a special end of stream entry”; and

(C) File stream entry as “a single entry in a file stream that is made up of a header, file data, and a footer” (col. 7, ll. 1-9).

(8) The Examiner finds (1) the backup server of Webb “is equivalent to the claimed media storage device because both the server and the media storage device store files” and (2) the file stream is a packet of data that comprises a file and header (Ans. 8).

(9) The Examiner finds Webb discloses adding a meta data header to the file stream by merging files modified since the last full backup with files presently residing at the backup server (*id.*).

(10) The file stream is written to the server and directed to the cache (col. 7, ll. 11-14). The meta file and file stream are concatenated and written to a single full tape backup volume on an external storage device and the file stream is then replaced with an empty file stream (col. 7, ll. 63-66).

(11) “The final state of the backup server contains a new meta file, an empty file stream, and a new fast lookup file in the backup cache, a meta file concatenated with a file stream on removable media, a copy of the fast lookup file in an online tape database and optionally a copy of the cache meta file in an online fast cache recovery database” (col. 8, ll. 29-34).

PRINCIPLES OF LAW

Claim Construction

“[C]laims ... are to be given their broadest reasonable interpretation consistent with the specification, and ... claim language should be read in light of the specification as it would be interpreted by one of ordinary skill in the art.” *In re Bond*, 910 F.2d 831, 833 (Fed.Cir.1990); *accord* [*In re*]*Bass*, 314 F.3d [575,] 577 [(Fed. Cir. 2002)] (“[T]he PTO must apply the broadest reasonable meaning to the claim language, taking into account any definitions presented in the specification.”); *In re Cortright*, 165 F.3d 1353, 1358 (Fed.Cir.1999)

In re Am. Acad. of Sci. Tech Ctr., 367 F.3d 1359, 1364 (Fed. Cir. 2004).

ANALYSIS

Appellants state “the media storage device 40 . . . could . . . include both fixed and removable media using any one or more of magnetic, optical or magneto-optical storage technology or any other available mass storage technology” (FF 1). Therefore, we agree with the Examiner’s finding that the back-up server of Webb is a media storage device (FF 8). Further, we find the backup server of Webb, and thus, the media storage device, includes RAM, disk cache, and tape volume (*See e.g.*, Figs. 14, 15, 18, and 19).

We find that the stream of data is a packet of data as the stream of data contains data and a header (FF 7B and 7C). We further find the stream of data is received at the back-up server (FF 10). Next, we find the meta file and file stream are concatenated and stored on a removable media within the backup server (FF 9-11). The meta file includes the meta header (FF 7A) and thus, we find Webb describes a meta data header being added to the received packet of data. We further find Webb discloses the concatenated

data (extended packet of data) is stored on the backup server on a removable media – the media storage device.

Therefore, we find (1) Webb discloses adding a meta data header to the received packet of data at the media storage device, and (2) storing the extended packet of data onto a media within the media storage device. Thus, Appellants have not shown the Examiner erred in rejecting claims 1-7, 19-35, and 44-54 under 35 U.S.C. § 102(e) as anticipated by Webb.

ISSUE 3

35 U.S.C. § 102(e): claims 8-15

Appellants assert Webb does not disclose “stripping first header data from the previously stored packet of data at the media storage device and transmitting the retrieved packet of data to another device.” (App. Br. 13, § 2.b).

The Examiner finds Webb describes that when data is modified and the backup server is updated, the data including the header is modified and some data is flushed or deleted (Ans. 8-9).

Issue 3: Have Appellants met the burden of showing the Examiner erred in finding Webb describes (1) stripping first header data from the previously stored packet of data at the media storage device and (2) transmitting the retrieved packet of data to another device?

ANALYSIS

With respect to claim 8, Appellants have: (1) merely recited the language of the claim, (2) asserted that the limitations are not disclosed by

Webb, and (3) failed to respond to the specifics of the Examiner's rejection (*see* App. Br. 12-13, §2.b). The Examiner's argument directed to anticipation has not been traversed by Appellants (*id.*). We note that a statement which merely points out what a claim recites will not be considered an argument for separate patentability of the claim. *See* 37 C.F.R. § 41.37(c)(1)(vii). Moreover, it is our view that Appellants have failed to comply with the requirements of 37 C.F.R. § 1.111(b) by merely reciting the language of the claim and asserting that such language is not taught by the reference without pointing out error in the Examiner's findings.

Therefore, we conclude that Appellants have not shown the Examiner erred in rejecting claims 8-15 under 35 U.S.C. § 102(e) as being anticipated by Webb.

CONCLUSION

Based on the findings of facts and analysis above, we conclude Appellants have met the burden of showing the Examiner erred in concluding that independent claims 19 and 53 recite non-statutory subject matter under § 101. Since claims 20-23 depend from claim 19, we further conclude the Examiner erred in concluding that claims 20-23 recite non-statutory subject matter. Accordingly, we conclude Appellants have met the burden of showing the Examiner erred in rejecting claims 19-23 and 53 under 35 U.S.C. § 101 as being directed to non-statutory subject matter.

We additionally conclude Appellants have not met the burden of showing the Examiner erred in finding Webb discloses (1) adding a meta data header to the received packet of data at the media storage device and (2)

storing the extended packet of data onto a media within the media storage device. Accordingly, we conclude Appellants have not met the burden of showing the Examiner erred in rejecting claim 1 under 35 U.S.C. § 102(e) as being anticipated by Webb. Since claims 2-7 depend from independent and representative claim 1 and were not separately argued, we conclude Appellants have not met the burden of showing the Examiner erred in rejecting claims 2-7 under 35 U.S.C. § 102(e) for anticipation by Webb.

Although claims 19-35 and 44-54 were “argued separately,” the only arguments presented were those set forth for representative independent claim 1. Independent claims 19, 24, 30, 44, and 50-54 all contain commensurate language. Thus, for the reasons set forth above for representative claim 1, we conclude Appellants have not met the burden of showing the Examiner erred in rejecting independent claims 19, 24, 30, 44, and 50-54 and claims 20-23, 25-29, 31-35, and 45-49 which depend from claims 19, 24, 30, and 44 respectively and were not separately argued.

We further conclude Appellants have not met the burden of showing the Examiner erred in finding Webb describes (1) stripping first header data from the previously stored packet of data at the media storage device and (2) transmitting the retrieved packet of data to another device as recited in independent claim 8. Accordingly, we conclude Appellants have not met the burden of showing the Examiner erred in rejecting claim 8 under 35 U.S.C. § 102(e) as being anticipated by Webb. Since claims 9-15 depend on independent and representative claim 8 and were not separately argued, we conclude Appellants have not met the burden of showing the Examiner erred in rejecting claims 8-15 under 35 U.S.C. § 102(e) for anticipation by Webb.

DECISION

The Examiner's rejection of claims 19-23 and 53 under 35 U.S.C. § 101 for reciting non-statutory subject matter is reversed.

The Examiner's rejection of claims 1-15, 19-35, and 44-54 under 35 U.S.C. § 102(e) as being anticipated by Webb is affirmed.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a)(1)(iv) (2009).

AFFIRMED

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